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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,984	08/29/2001	Shin Tamata	ASA-1028	5968

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EXAMINER
NGUYEN, NGOC YEN M

ART UNIT	PAPER NUMBER
1754	7

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/940,984	TAMATA ET AL.	
	Examiner	Art Unit	
	Ngoc-Yen M. Nguyen	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 March 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4,6* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on March 16, 2001. It is noted, however, that applicant has not filed a certified copy of the JP 2001-075241 application as required by 35 U.S.C. 119(b).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 3-4 are rejected under 35 U.S.C. 102(a) as being anticipated by EP-1,101,524.

EP '524 has a publication date before the filing date of the instant application, but after the claimed foreign priority date. However, Applicant cannot rely upon the foreign priority papers to overcome this rejection because a copy of the priority papers and a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

EP '524 discloses a method for treatment of a waste gas comprising fluorine-containing compounds which comprises the steps of separating the solids from the waste gas, adding hydrogen and/or water pr hydrogen and/or water and oxygen as a decomposition assist gas, thermally decomposing the waste gas by contact with gamma-alumina and removing acidic gases from the decomposed waste gas (note

claim 1). The acidic gases are removed by passage through a spray column (acidic gas treating means), from which the treated gas emerges. The air ejector is installed to control the pressure in each of treating means (note column 4, lines 41-45). The waste gas contains PFCs (i.e. perfluorocarbons), oxidizing gases, acidic gases and CO (note column 3, lines 6-8).

The process of EP '524 anticipates the claimed process.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP '524 in view of EP 1 027 918.

EP '524 discloses a process as stated in the above rejection.

EP '524 does not specifically disclose that the waste gas is from a semiconductor production plant and the use of a demister.

Even though EP '524 does not disclose that the waste gas is from a semiconductor production plant, however, the source of the waste gas is not seen as a patentable difference because the waste gas, from any source, would still be decomposed in the process of EP '524.

EP '918 discloses a process for treating exhaust gases, comprising a step of introducing exhaust gases into an aqueous alkaline liquid in an aeration stirring tank while stirring the liquid, and a step of removing harmful gases from the gases discharged from the aeration stirring tank (note claim 1), wherein said removal step comprises a process of allowing the gases discharged from the aeration stirring tank to come into contact with an aqueous liquid (note claim 2). EP '918 discloses that the exhaust gases come from semiconductor production industry, such exhaust gases contain unreacted gases (i.e., CF_4, among others), as well as decomposition products (note page 2, paragraph [0002]). As shown in Figure 1 and described on page 4, the semiconductor production exhaust gas 1 is allowed to come into contact with the alkaline washing liquid 4, with the water 15 or the alkaline solution 3 in the aeration stirring tank 5. The alkali-treated exhaust gas 6 is passed to gas-liquid contact device 7, a demister 9 is provided at the outlet of the water shower in order to prevent the sprayed water from flying into subsequent stages (note page 7, lines 14-15), and a suction device 12 is used to discharged the treated gas 13 into the atmosphere. The suction device 12 can be an ejector type suction device (note page 5, lines 52-54).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to use a demister as suggested by EP '918 in the process of EP '524 because such demister would prevent the sprayed water from flying into subsequent stages.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 885 648 or Rossin et al (6,069,291), either one in view of EP '918.

EP '648 discloses a method of treatment for decomposing fluorine compounds, comprising the step of contacting a gas flow containing said fluorine compounds with fluorine compound-decomposition catalyst in the presence of steam to convert said fluorine compounds to hydrogen fluoride (note claim 1). The fluorine compounds contains at least one fluorine compound selected from CF_4, C_2F_6, C_3F_8, etc. (note claim 2). These are perfluorocarbons as required in the instant claims. EP '648 further discloses that the gas flow containing HF is neutralized by scrubbing with an aqueous alkali solution (note claim 5). The gas flow containing fluorine compounds can come from a semiconductor etching process (note page 5, lines 15-16).

Alternatively Rossin '291 can be applied as stated below.

Rossin '291 discloses a process for the decomposition of perfluoroalkanes to HF and CO_2, said process comprising contacting the perfluoroalkanes with a catalyst composition consisting essentially of aluminum oxide, cobalt and zirconia (note claim 1). The perfluoroalkanes are generated during electrolytic aluminum smelting, or during semiconductor manufacture (note column 3, lines 48-54). Rossin '291 teaches that if the concentration of hydrofluoric acid in the effluent stream is deemed unacceptable, conventional collection or abatement processes, such as caustic scrubbing, may be employed to avoid venting acid gases directly into the atmosphere (note column 5, lines 44-48).

The differences are EP '648 or Rossin '291 does not disclose the use of a demister and the use of an ejector.

EP '918 is applied as stated above. EP '918 fairly teaches that after a scrubbing process, it is well known to use a demister to prevent the spraying water from flying into subsequent stages and to use an ejector to release the treated gas into the atmosphere.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to use a demister and an ejector as suggested by EP '918 in the process of EO '648 or Rossin '291 because such use is conventional and known in the art to prevent the spraying water from flying into subsequent stages and to release the treated gas into the atmosphere.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (703) 308-2536. The examiner can normally be reached on Part time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (703) 308-3837. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Ngoc-Yen M. Nguyen
Primary Examiner
Art Unit 1754

nmn
9/8/03